

We Claim:

1. An electromagnetically actuable device comprising:
a magnetic core;
5 an armature proximate the magnetic core;
a coil selectively energized to draw the armature to the magnetic
core; and
a formed interface positioned between the armature and magnetic
core having a shape adapted to provide three contact areas in a triangular
10 configuration between mating surfaces of the armature and the magnetic core.
2. The device of claim 1, wherein the formed interface
provides minimal magnetic airgap between the armature and the magnetic core
to promote a stable interface when the coil is energized.
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3. The device of claim 1, wherein the formed interface
minimizes noise.
4. The device of claim 1, wherein the formed interface is of a
20 concave shape.
5. The device of claim 1, wherein the formed interface is of a
convex shape.
- 25 6. The device of claim 1, wherein the electromagnetically
actuable device is a contactor.
7. The device of claim 1, wherein the electromagnetically
actuable device is an AC solenoid.
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8. The device of claim 1, wherein the electromagnetically
actuable device is an electromagnetic actuator.

9. The device of claim 1, wherein the electromagnetically actuatable device is a motor starter.

5 10. The device of claim 1, wherein the formed interface includes an end portion having an angled edge from its center line to a side edge.

 11. The device of claim 10, wherein the angled edge of the end portion is offset to minimize an air gap between the armature and the magnetic
10 core to minimize noise there between.

 12. The device of claim 11, wherein the angled edge of the end portion has an offset of at least .002 inches.

15 13. The device of claim 1, wherein the angled edge of the end portion has an offset between and including .004 to .002 inches.

 14. The device of claim 1, wherein the angled edge of the end portion has an offset between and including .01 to .004 inches.

20 15. The device of claim 1, wherein the formed interface is stamped, coined or otherwise formed.

 16. The device of claim 1, wherein the formed interface
25 includes a contact area in the center of an adjoining pole face and two contact areas at outer edges of another pole face there between the magnetic core and the armature.

 17. The device of claim 1, wherein the formed interface
30 possess a convex shape at one end and a concave shape at the other end.

18. A method for stabilizing actuation of an electromagnetic device comprising:
positioning a formed interface between an armature and a
5 magnetic core, wherein the formed interface has a shape adapted to provide
three contact areas in a triangular configuration there between.

19. The method of claim 18, wherein the triangular
configuration is provided by the formed interface having a concave shape at
10 one end and a convex shape at the other, the concave and convex shapes
resulting in a contact area in the center of an adjoining pole face and two
contact areas at outer edges of another pole face therebetween the magnetic
core and the armature.